

LAKE: TOGUS P (LOWER) (VLMP 11)
 TOWN: CHELSEA
 COUNTY: KENNEBEC

MIDAS: 5430
 TRUE BASIN: 1
 SAMPLE STATION: 1

WHOLE LAKE INFORMATION

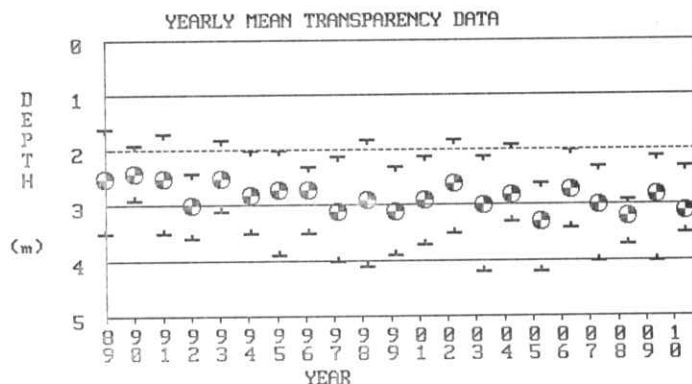
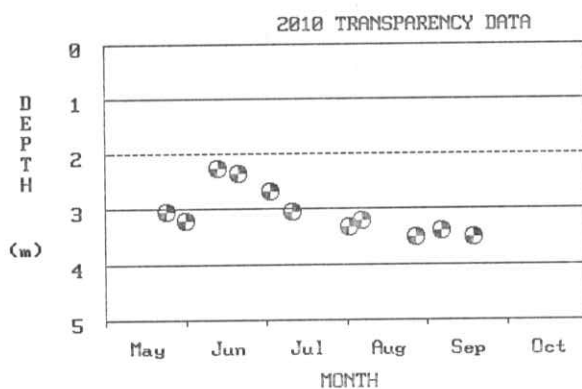
MAX. DEPTH: Undetermined
 MEAN DEPTH: Undetermined
 DELORME ATLAS #: 13
 USGS QUAD: TOGUS POND
 IFW REGION B: Belgrade Lakes (Augusta)
 IFW FISH. MANAGMENT: None

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 93.0 ha. (229.8 a.)
 FLUSHING RATE: 9.11 flushes/yr.
 VOLUME: 2790000.0 cu. m. (2263 ac.-ft.)
 DIRECT DRAINAGE AREA: 22.44 sq. km. (8.66 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. TOGUS P (LOWER) has 1 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:



Note: 2010 graphs may indicate multiple readings taken on a given day.

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[* indicates that Secchi disk was visible at bottom of lake (or one reading used in calculation was visible)].

YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES			
	COLOR	pH	ALK	COND.	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
	(SPU)		(mg/l)	(uS /cm)	CORE	GRAB	GRAB	GRAB											
1989	-	-	-	-	-	-	-	-	1.6	2.5	3.5	5	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	1.9	2.4	2.9	5	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	1.7	2.5	3.5	7	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	2.4	3.0	3.6	7	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	1.8	2.5	3.1	7	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	2.0	2.8	3.5	6	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	2.0	2.7*	3.9*	6	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	2.3	2.7	3.5	5	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	2.1	3.1*	4.0*	6	-	-	-	-	-	-	-
1998	51	-	8.0	38	19	-	-	-	1.8	2.9*	4.1*	6	12.0	12.0	12.0	-	-	-	-
1999	-	-	-	-	-	-	-	-	2.3	3.1*	3.9*	6	-	-	-	-	-	-	-
2001	58	6.88	7.0	50	20	-	-	-	2.1	2.9	3.7	6	4.2	4.2	4.2	-	-	-	-
2002	57	-	9.8	45	11	-	-	-	1.8	2.6	3.5	6	5.8	6.3	6.9	-	-	-	-
2003	-	-	-	-	-	-	-	-	2.1	3.0*	4.2*	6	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	1.9	2.8	3.3	5	-	-	-	-	-	-	-

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SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

YEAR	MEAN COLOR (SPU)	MEAN pH	MEAN ALK (mg/l)	MEAN COND. (uS /cm)	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES			
					EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	EPI PHOS		SEC	CHL
					CORE	GRAB	GRAB	GRAB								C	G		
2005	-	-	-	-	-	-	-	-	2.6	3.3*	4.2*	6	-	-	-	-	-	-	-
2006	66	6.76	7.2	45	-	16	-	-	2.0	2.7	3.4	6	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	2.3	3.0*	4.0	5	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	2.9	3.2	3.7	5	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	2.1	2.8*	4.0*	5	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	2.3	3.1	3.5	5	-	-	-	-	-	-	-
SUMMARY:	58	6.82	8.0	44	17	16	-	-	1.6	2.8*	4.2*21		4.2	7.5	12.0	-	-	-	-

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH m	SAMPLE DATE					
	08/20/98		08/30/01		08/29/02	
	°C	ppm	°C	ppm	°C	ppm
0.0	24.7	7.4	23.8	8.0	22.5	7.0
1.0	22.5	7.5	21.9	7.7	21.9	6.8
2.0	22.0	6.3	21.2	7.5	21.8	6.5
3.0	21.4	6.6	21.0	7.4	21.6	6.4
4.0	-	-	-	-	21.1	3.3

WATER QUALITY SUMMARY

TOGUS POND (LOWER), CHELSEA

Midas: 5430, Sample Station # 1

The Maine Department of Environmental Protection (ME-DEP) and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate present water quality, track algae blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring datasets for Lower Togus Pond have been collected since 1989. During this period, 3 years of basic chemical information was collected, in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Lower Togus Pond is considered to be below average, based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance alga blooms on Lower Togus Pond is high.

Water Quality Measures: Lower Togus Pond is a colored lake (average color 57 SPU) with an average SDT of 2.8*m (9.2*ft). (* indicates Secchi Disk was visible on the bottom of the pond on one or more occasions. If the pond were deeper, SDT's would be greater.) The range of water column TP for Lower Togus Pond is 11-20 parts per billion (ppb) with an average of 17 ppb, while Chla ranges from 4.2-12.0 ppb with an average of 7.5 ppb. Recent dissolved oxygen (DO) profiles show low DO depletion in deep areas of the lake. The potential for TP to leave the bottom sediments and become available to algae in the water column (internal loading) is low.

Lower Togus Pond is a shallow, productive pond. The pond does bloom frequently, but not every year. The pond supports largemouth bass and is popular with local fishermen.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

Filename: togu5430, Revised: 3/06, By: jp